

ABSTRACT OF THE DISCLOSURE

An efficient telecommunications receiver system for accurately decoding a received composite signal having a data signal component and a pilot signal component includes a first circuit for receiving the composite signal and extracting a pilot signal and a data signal from received composite signal. A second circuit calculates a log-likelihood ratio as a function of a channel estimate based on the pilot signal. A third circuit scales the log-likelihood ratio by a predetermined log-likelihood ratio scaling factor and provides an accurate log-likelihood value in response thereto. A fourth circuit decodes the received composite signal based on the accurate log-likelihood value and the data signal. The third circuit includes a carrier signal-to-interference ratio circuit for computing a first signal-to-interference ratio and a second signal-to-interference ratio based partly on the pilot signal.

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